



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of: Hainsworth et al.

Attorney Docket No.: UDL1P067

Patent: 6,699,802

Issued: March 2, 2004

Title: FIRE RESISTANT TEXTILE MATERIAL

**REQUEST FOR CERTIFICATE OF CORRECTION
OF OFFICE MISTAKE
(35 U.S.C. §254, 37 CFR §1.322)**

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450
Attn: Certificate of Correction

Dear Sir:

**Certificate
JUL 30 2004
of Correction**

Attached is Form PTO-1050 (Certificate of Correction) at least one copy of which is suitable for printing. The errors together with the exact page and line number where the errors occur, and shown correctly in the application filed, are as follows:

SPECIFICATION:

1. Column 1, line 45, change the first occurrence of "layer" to --layers--. This appears correctly in the application as filed on page 2, paragraph 1, line 1.
2. Column 1, line 50, change "changing" to --charring--. This appears correctly in the application as filed on page 2, paragraph 1, line 5.
3. Column 1, line 64, change "beat" to --heat--. This appears correctly in the application as filed on page 2, paragraph 3, line 3.
4. Column 2, line 9, add --viscose,-- after "tenacity". This appears correctly in the application as filed on page 2, paragraph 5, line 4.
5. Column 2, line 19, change "exces" to --excess--. This appears correctly in the application as filed on page 2, paragraph 7, line 2.



Patentee hereby requests expedited issuance of the Certificate of Correction because the error lies with the Office and because the error is clearly disclosed in the records of the Office.

As required for expedited issuance, enclosed is documentation that unequivocally supports the patentee's assertion without needing reference to the patent file wrapper.

It is noted that the above-identified errors were printing errors that apparently occurred during the printing process. Accordingly, it is believed that no fees are due in connection with the filing of this Request for Certificate of Correction. However, if it is determined that any fees are due, the Commissioner is hereby authorized to charge such fees to Deposit Account 500388 (Order No. UDL1P067).

Respectfully submitted,
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Fire fighting garments have been made from a plurality of textile layers, including an outer layer of woven meta-aramid fibre, for example as manufactured under the trade mark Nomex. Break open protection may be afforded by blending with para-aramid fibres, eg as manufactured under the trade mark Kevlar and as disclosed in US 3063966 and US 3506990. However charring of such blends may lead to cracking and embrittlement with consequent deterioration of physical properties.

According to the present invention a fire resistant textile material comprises a woven face fabric composed of fibres selected from meta-aramid, polyamideimide and mixtures thereof, the fabric including a woven mesh of low thermal shrinkage fibres.

Use of low thermal shrinkage fibres in accordance with the present invention increases the residual tensile strength of the textile material following exposure to flame or a radiant heat source. Low thermal shrinkage fibres in accordance with this invention may be defined as a fibre which exhibits not more than 6% shrinkage when exposed to a temperature of 400°C for a period of 5 seconds.

Low thermal shrinkage fibres in accordance with the present invention may be selected from the following materials:

polyparaphenylene terephthalamide (para-aramid eg Kevlar), polyparaphenylene terephthalamide copolymer, polyamide imide, copolyimide, phenolic fibres obtained by cross-linkage of phenolaldehyde resin and containing more than 70% carbon, polybenzimidazole, polyetheretherketone, high tenacity viscose, silicon carbide both with a core and with an organic precursor, ceramic fibres including alumina, alumina silicate and borosilico aluminate; and glass fibres including E glass, C glass, D glass and R glass. Mixtures of the aforementioned fibres may be employed.

Preferred low shrinkage fibres are selected from para-aramid, polyparaphenylene terphthalamide copolymers; polyamide imide; carbon fibres and mixtures thereof.

Fibres or yarns composed of 100% polyparaphenylene isophthalamide meta-aramid (eg Nomex) shrink upon exposure to high temperatures, for example in excess of 295EC. This shrinkage can result in a whole garment exposed to a flame. The low thermal shrinkage fibres, for example para-aramid fibres or yarns do not shrink to the same extent on exposure to this temperature. (The thermal shrinkage of Kevlar is about 3%,

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(Also Form PT-1050)

UNITED STATES PATENT AND TRADEMARK OFFICE CERTIFICATE OF CORRECTION

PATENT NO. : 6,699,802

DATED : March 2, 2004

INVENTOR(S) : Hainsworth et al.

It is certified that error appears in the above-identified patent and that said Letters Patent are hereby corrected as shown below:

In the Specifications:

Column 1, line 45, change the first occurrence of "layer" to --layers--.

Column 1, line 50, change "changing" to --charring--.

Column 1, line 64, change "beat" to --heat--.

Column 2, line 9, add --viscose,-- after "tenacity".

Column 2, line 19, change "exces" to --excess--.

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PATENT NO. 6,699,802

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